

# EDL-GENERATION PUBLIC COMPANY

No. 72/2018  
7 June 2018

## CORPORATES

<b>Company Rating:</b>	BBB+
<b>Issue Ratings:</b>	
Senior unsecured	BBB+
<b>Outlook:</b>	Negative

### Company Rating History:

Date	Rating	Outlook/Alert
12/06/17	BBB+	Negative
15/10/14	BBB+	Stable

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## RATIONALE

TRIS Rating affirms the company rating of EDL-Generation Public Company (EDL-Gen) and the ratings of EDL-Gen's senior unsecured debentures at "BBB+". The ratings reflect the credit profile of Electricite du Laos (EDL), the company's major shareholder and the sole electricity off-taker. EDL is a state-owned enterprise of the Lao People's Democratic Republic (Lao PDR). As a result, its credit profile is underpinned by the sovereign rating of "BBB+/Negative" assigned by TRIS Rating to the Lao PDR. EDL-Gen's ratings take into consideration the company's critical role in the electricity generation industry in the Lao PDR. The ratings are partially constrained by the sovereign rating of the Lao PDR, the sizable investments EDL plans to make, and the hydrology risks in the Lao PDR.

## KEY RATING CONSIDERATIONS

### EDL-Gen's credit profile reflects the profiles of EDL and the Lao PDR

EDL-Gen's credit profile reflects that of EDL since EDL owns a 75% stake in EDL-Gen. EDL-Gen is tightly integrated with EDL in terms of the power off-taker role of EDL, the potential business growth, the structure of power purchase agreements (PPAs) in the future, and dividend policy. EDL is the country's sole power off-taker and the sole owner of the power grid connected to all of EDL-Gen's existing and future power generating assets.

EDL is wholly-owned by the Ministry of Finance of the Lao PDR (MOFL). The credit quality of EDL is underpinned by the very high likelihood that the government of the Lao PDR will provide its full support to EDL in the event of distress. This assumption is supported by two factors. EDL and EDL-Gen each plays a critical role in the power development plan for the Lao PDR. In addition, the power sector is playing an important part in the effort to advance the economic and social development goals of the Lao PDR.

### Strong market position in the Lao PDR's power sector

EDL-Gen is the second-largest power generator in the Lao PDR based on installed capacity, with a 17.6% share of total installed capacity. However, EDL-Gen is the largest power producer based on the amount of power supplied to the domestic market. EDL-Gen has a 39% share in domestic power supply.

At the end of March 2018, EDL-Gen owned and operated 10 hydroelectric power plants in the Lao PDR with total capacity of 619 megawatts (MW). When including investments in five hydroelectric power projects under Independent Power Producer (IPP) scheme and one solar power project located in the Lao PDR, EDL-Gen's equity capacity was 1,137 MW as of March 2018.

### Current performance is slightly below target

EDL-Gen's operating performance of hydroelectric power plants depend on water inflow. In 2017, electricity sales decreased by 5% to 2,575 gigawatt hours (GWh) from 2,685 GWh in 2016. The drop was mainly due to a drop in water inflows. Despite the drop in electricity sales, revenue declined by only 1.7% from Kip1.24 trillion in 2016 to Kip1.22 trillion in 2017. This difference was attributed to the increase of electricity tariff of 1% per annum. In addition, the company has benefitted from the depreciation in Lao kip against US dollar. The electricity tariff of the three new plants added in late 2015 is charged in US dollars.

## Huge investment plan in the pipeline

For the expansion plan covering the period of 2018-2023, EDL-Gen plans to enlarge its generation capacity by 1,253 MW with a total investment cost of about Kip16.1 trillion. EDL-Gen's operating capacity will double from the current of 1,137 MW at the end of 2017 to 2,390 MW in 2023.

For the period of 2018-2022, the company's total expenditures are budgeted at around Kip16 trillion. About 60% will be used to acquire power assets from EDL and to construct its new plants. The rest will be used to purchase EDL's stake in IPP projects. The investments in IPP projects include a 20% interest in Xayaburi hydroelectric power project (total capacity of 1,285 MW) and 20% stake interest in Donsahong hydroelectric power project (total capacity of 260 MW). These two power plants will come on-stream in 2019. Of the total expenditure of Kip16 trillion, EDL-Gen has already paid about Kip4.4 trillion in advance to EDL for its equity stakes in most of the projects.

## Leverage expected to increase

During the investment period, the company's balance sheet is expected to deteriorate on increased financial leverage. Based on TRIS Rating's assumption, EDL-Gen's outstanding debt is forecast to increase from about Kip9.8 trillion at the end 2017 to a peak of about Kip17.8 trillion in 2022. The debt to capitalization ratio is projected to fall within the range of 60%-63% during 2018-2022, compared with 51.5% at the end of 2017.

## EBITDA to be enlarged after 2021

Based on TRIS Rating's base-case scenario, EDL-Gen's revenue will grow at a compound annual growth rate (CAGR) of about 11%, during 2017-2022. EDL-Gen's earnings before interest, taxes, depreciation and amortization (EBITDA) will grow from Kip1.46 trillion in 2017 to approximately Kip2.7 trillion in 2022, the year when almost all of the power projects have been in operation for a full year. The operating margin (operating income before depreciation and amortization as a percentage of sales) should remain above 80%.

## Moderate liquidity profile

EDL-Gen's liquidity is considered moderate. Its sources of funds comprised cash on hand of Kip1.59 trillion and undrawn credit facilities of Kip0.09 trillion at the end of March 2018. Its funds from operations over the next 12 months are expected to be around Kip0.71 trillion. On the other hand, a significant amount of debt totaling Kip1.53 trillion will come due over the next 12 months.

## RATING OUTLOOK

The "negative" outlook reflects the outlook for the sovereign rating of the Lao PDR. TRIS Rating expects that the business model and the level of integration between EDL and EDL-Gen will remain unchanged. EDL-Gen is expected to expand as planned and generate strong cash flows. EDL is expected to hold a majority stake in EDL-Gen and receive continuing support from the government of the Lao PDR.

## RATING SENSITIVITIES

A change in the outlook to "stable" is ultimately dependent on the outlook for the sovereign rating of the Lao PDR. The downside scenario for EDL-Gen's ratings is primarily tied to a downgrade of the sovereign rating of the Lao PDR or aggressive investments that cause the company's total debt to capitalization ratio to exceed 65% for a prolonged period.

## COMPANY OVERVIEW

EDL-Gen was founded in 2010 and was listed on the Lao Securities Exchange (LSX) in 2011. The incorporation of EDL-Gen was part of the restructuring of the power sector in the Lao PDR, which called for EDL-Gen to purchase the current and future power generating assets from EDL. Before EDL-Gen was set up, EDL was the sole vertically integrated electric power utility, dominating all aspects of the sector in the Lao PDR, from power generation, transmission lines, and the distribution of electricity to end-users. EDL also owned stakes in several IPPs operating in the Lao PDR. Notwithstanding the transfer of its electricity generating assets to EDL-Gen, EDL remains the single buyer of electricity in the Lao PDR and the dominant electricity distributor. EDL owns almost all of the power grid in the Lao PDR.

As of March 2018, EDL held a 75% stake in EDL-Gen. EDL-Gen owns and operates hydropower assets developed by EDL. EDL-Gen also invests in the IPP hydropower projects previously held by EDL. Each of EDL-Gen's power generating asset operates under a power purchase agreement (PPA) and concession covering 30 years.

As of March 2018, EDL-Gen's aggregate equity capacity was 1,137 MW, divided into 619 MW from its wholly owned 10 hydropower plants and 518 MW from its equity investments in five IPPs and one solar power project.

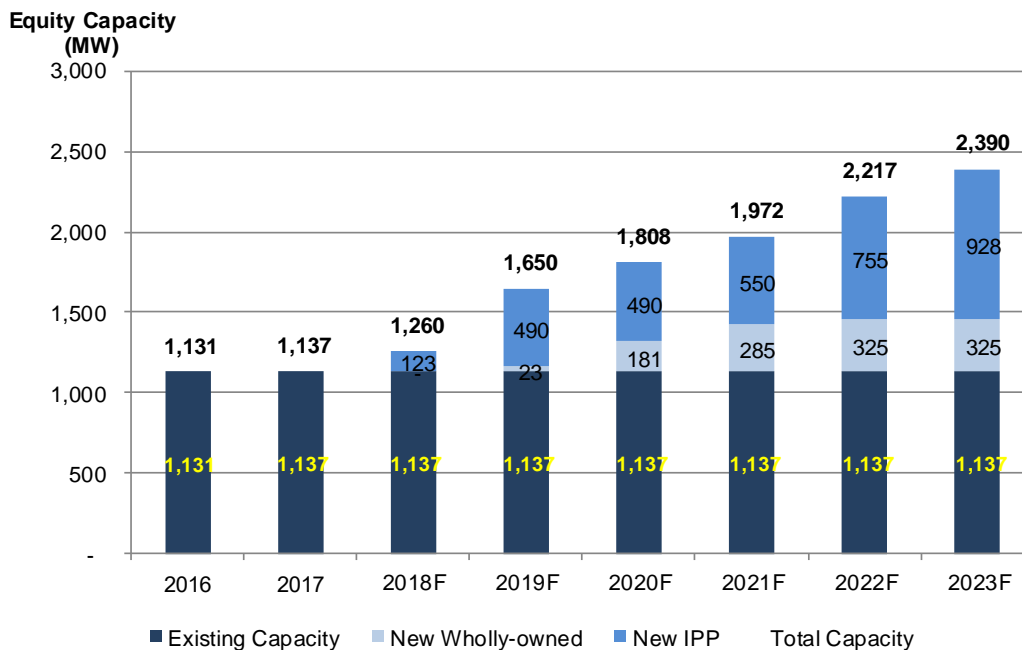
**EDL-Gen's PORTFOLIO**

**EDL-Gen's Hydro Power Portfolio, as of Mar 2018**

Plant	EDL-Gen's Stake (%)	Location	Acquired Year	COD	Installed Capacity (MW)	Equity Capacity (MW)
<b>Wholly-owned</b>						
1 Nam Ngum 1	100	Vientiane	2010	1971	155	155
2 Nam Leuk	100	Xaysomboun	2010	2000	60	60
3 Nam Mang 3	100	Vientiane	2010	2005	40	40
4 Nam Song	100	Vientiane	2010	2012	6	6
5 Xeset 1	100	Saravanh	2010	1991	45	45
6 Xeset 2	100	Saravanh	2010	2009	76	76
7 Selabam	100	Champasak	2010	1969	5	5
8 Nam Sana	100	Vientiane	2015	2014	14	14
9 Houy Lamphan Gnai	100	Xekong	2015	2015	88	88
10 Nam Khan 2	100	Luang Prabang	2015	2015	130	130
<b>Total wholly-owned</b>					<b>619</b>	<b>619</b>
<b>Investment</b>						
11 Theun-Hinboun	60	Bolikhamxai	2012	1998	500	300
12 Houay Ho	20	Attapeu	2012	1999	152	30
13 Nam Lik 1-2	10	Vientiane	2012	2010	100	10
14 Nam Ngum 2	25	Vientiane	2012	2011	615	154
15 Nam Ngum 5	15	Vientiane	2015	2012	120	18
16 Solar power	60	Vientiane	2017	2017	10	6
<b>Total investment</b>					<b>1,497</b>	<b>518</b>
<b>Total</b>					<b>2,116</b>	<b>1,137</b>

Source: EDL-Gen

**EDL-Gen's Growth Plan**



Source: EDL-Gen

**FINANCIAL STATISTICS AND KEY FINANCIAL RATIOS\***

Unit: Kip million

	Jan-Mar 2018	----- Year Ended 31 December -----			
		2017	2016	2015	2014
Revenue	221,465	1,219,825	1,241,181	847,759	839,193
Gross interest expense	144,160	491,902	154,918	61,937	31,722
Net income from operations	74,405	519,749	615,613	650,814	925,782
Funds from operations (FFO)	239,545	856,212	1,040,761	821,352	826,471
Capital expenditures	36,439	987,895	756,108	498,862	142,162
Total assets	20,079,330	19,619,193	18,729,565	11,968,372	8,821,261
Total debts	10,165,449	9,759,715	5,039,389	2,471,627	2,174,644
Shareholders' equity	9,243,130	9,208,819	9,186,402	9,104,228	6,321,641
Operating income before depreciation and amortization as % of sales	70.4	84.0	85.8	79.7	81.2
Pretax return on permanent capital (%)	5.9 **	6.2	6.4	7.5	12.7
Earnings before interest, tax, depreciation, and amortization (EBITDA) interest coverage (times)	2.3	3.0	8.1	15.8	36.6
FFO/total debt (%)	9.5 **	8.8	20.7	33.2	38.0
Total debt/capitalization (%)	52.4	51.5	35.4	21.4	25.6

\* Consolidated financial statements

\*\* Annualized with trailing 12 months

**KEY FINANCIAL STATISTICS (TRANSLATED INTO THAI BAHT)\***

Unit: Bt million

	Jan-Mar 2018	----- Year Ended 31 December -----			
		2017	2016	2015	2014
Revenue	886	4,879	4,965	3,391	3,357
Gross interest expense	577	1,968	620	248	127
Net income from operations	298	2,079	2,462	2,603	3,703
Funds from operations (FFO)	958	3,425	4,163	3,285	3,306
Capital expenditures	146	3,952	3,024	1,995	569
Total assets	80,317	78,477	74,918	47,873	35,285
Total debts	40,662	39,039	20,158	9,887	8,699
Shareholders' equity	36,973	36,835	36,746	36,417	25,287

\* Exchange rate at Kip250 per Bt1

**EDL-Generation Public Company (EDL-Gen)**

<b>Company Rating:</b>	BBB+
<b>Issue Ratings:</b>	
EDLGEN19DA: Bt1,500 million senior unsecured debentures due 2019	BBB+
EDLGEN21DA: Bt2,000 million senior unsecured debentures due 2021	BBB+
EDLGEN24DA: Bt3,000 million senior unsecured debentures due 2024	BBB+
EDLGEN239A: US\$51 million senior unsecured debentures due 2023	BBB+
EDLGEN269A: US\$166 million senior unsecured debentures due 2026	BBB+
EDLGEN289A: US\$95 million senior unsecured debentures due 2028	BBB+
<b>Rating Outlook:</b>	Negative

**TRIS Rating Co., Ltd.**

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